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Original Articles.

I.—ON COLO-PUNCTURE.

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(*Read before the Medico-Chirurgical Society, 7th February.*)

GENTLEMEN,—In the communication which I shall now have the honour of reading to the society, I have nothing better to offer than the recital of the details of a case which has lately come under my observation. Interesting to myself, I felt they might not prove uninteresting to many of you; and those who feel, as I read them, that there is a lack of anything like new information will, I trust, bear with me, and have their patience rewarded by the discussion to which the case is well calculated to give rise.

The subject of flatulent distension of the bowel or tympanites is one of very great importance to every medical man, whether he call himself surgeon, physician, obstetrician, or general practitioner; for while we know it may, from many causes, arise idiopathically, it is unfortunately not yet unknown as a sequel of surgical operation, or a result of the natural process of parturition. And there are few men, I fancy, who have not met in the course of practice with cases of excessive and alarming distension, such as I am about to

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## Reviews.

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I.—LYON MEDICAL, organ official de la Société de Médecine et de la Société des Sciences Médicales. Parait toutes les deux Semaines. Lyon. 1872.

THE following is a review of some of the more interesting papers which have appeared in the *Lyon Medical* during 1872. We have supplemented those on skin-grafting from other sources, so as to make it a comprehensive and tolerably complete history.

*Skin-Grafting.*—The second May number commences an article by M. Marduel on Skin-grafting, which is one of the most interesting among the original papers: not that it contains anything new, but rather from the extensive collection and translation of almost all the essays which have been written on the subject.

Although M. Reverdin is generally regarded as the originator of skin-grafting, yet Hamilton of New York states that he proposed it in 1847, but, owing to the non-compliance of his patient, was prevented from carrying it out; and that he advised the use of skin-grafting in a paper in the *New York Medical Journal* in 1854. It is also known that Tigri, in the *Sommario Anatomico e Fisiologico*, Sienna, 1867, states that detached portions of the epidermis retain their vitality through imbibition of nutritive fluid. Though Tigri only referred to the *epidermide depoeche pel Vesicatorio*, it would require a very little extension to come to the *lambeaux cutanés* of Reverdin. However this may be, the honour is undoubtedly due to Reverdin, if not of being the first to mention the subject, at least the first to carry it into practice, and bring it prominently before the medical public.

As is usual at the outset of any innovation, considerable diversity of opinion exists in many parts bearing on this subject.

Most observers are at one in regarding the healing sore as the most favourable field for the graft to live on, and some even consider it to be an essential. Page (*British Medical Journal*, December, 1870) states that the grafts must be planted on healthy vigorous granulations. Macleod (*Glas. Med. Journal*, May, 1871) states that the granulations must be sound and viable. Reverdin, in his paper published in the *Archives*

*Générales de Médecin*, 1872, points out that the wound should either be on the point of cicatrization or the cicatrization should have already commenced, and that the granulation should be healthy. He adds, however, that these conditions are not absolute, for he has planted with success a piece of tissue on a syphilitic ulcer of the lower limb in a woman aged 61 years, and success was further obtained by him in the following cases:—On a wound resulting from ablation of a cancerous mamma; on an ulcer the result of a bubo after its specific character was lost; and in one case affected with hospital gangrene. Heiberg and Hugo Scholtz (*Berl. klin. Wochenschrift*, VIII., 10, 1871) have met with considerable success in using grafts on patients who were affected with hospital gangrene. M. Gayet of Lyons succeeded in planting grafts on a surface from which a canceroid ulcer had been removed. We find in a paper of M. Achille Dron, published in the *Lyon Medical* in December, 1872, that he performed skin-grafting on an undoubted initial syphilitic sore. These facts greatly enhance the value of skin-grafting as a remedial agent, and, should they stand the test of future experience, we may hope no longer to see the deformities produced by the ulcerative action of bubos induced by soft sores, which sometimes, as we have seen, cause the lower limbs to be flexed on the abdomen, by the contraction of the tissues in forming the cicatrix, and thus compel the person to walk in a stooping attitude.

The grafts proposed are various. The use of scrapings from the epidermis was advocated, and cases recorded where they were employed with success; but Mr Goldie's experiments (*Lancet* 1, 16th April, 1870) made in the Charlton Union Hospital, showed that the epidermal scrapings were of little value compared with grafts comprising the whole skin. Jacenko, Reverdin, and Macleod, have failed to produce islets of epidermis from the employment of epidermal scrapings, though the latter remarks, that "their presence on the sore has sometimes seemed in a curious manner to augment the cicatrizing activity of the edges."

Grafts, including at least the malpighian or mucous-layer, are now advocated by Reverdin, Macleod, Page, and many others; while some think they succeed best by using the whole thickness of the skin. Some prefer to take their grafts from particular parts of the body, but it matters little, provided the tissue be sufficiently vascular. M. Ollier, of Lyons, takes his from limbs amputated for accidents, and in this way secures, as a rule, healthy tissue. This proceeding is practised also by Dr Wilson, of Greenock. (*Glasgow Medi-*

*cal Journal*, 1871, p. 346.) Dr Hofmohl, of Vienna (*Wien. Med. Presse*, 1871), took a strip of epidermis half-an-inch square from an amputated hand, and placed it on an ulcer. "Fourteen days after, a cicatrization commenced round the margin of this piece of skin, which had adhered firmly to its new seat." Czerney, of Vienna (*Med. Centralblatt*), took a portion of epithelium adhering to a nasal polypus, two hours after it had been removed from the nose, and transplanted it on an ulcer. Its cilia were still in motion at the time of its transplantation. The epithelium grew, lost its cilia, and became converted into paved epithelium. He also found that portions of epithelium, transplanted from a uvula, excised half-an-hour previously on to a wound left by excision of the mamma, grew and helped to form the cicatrix. Jacenko (de Kiew) states that he has transplanted tissue from man to man, from man to the dog, from dog to dog, but that he failed to transplant from the dog to man. Then there comes the well-known case where Mr Bryant transplanted the skin of a negro on to a white man. Netolitzki communicates to the *Wiener medizinische Wochenschrift*, August, 1871, the fact that a M. Philippe transplanted a portion of the skin of a rabbit on to a man with success. Reverdin used a graft from a rabbit, and another from a sheep, and succeeded in both instances.

M. Dubreuil (*Gaz. des Hopitaux*, July 30, 1872) transplanted a graft from the guinea-pig on to an ulcer of the leg, and another portion from a dog on to a wound on a girl's cheek, and both succeeded. M. Letiévant (*Lyon Medical*, 1871) transplanted with success a portion of the skin from the abdomen of a dog. M. Molliere failed in his attempt to graft a portion of the tissue of a cat on an ulcer of the leg. Ollier grafted a portion of periosteum, and found that it formed an islet of epidermis. Lastly, Mr Benjamin Howard found an American officer who permitted him to remove a portion of muscle from his arm and engraft it on an ulcer from which the officer suffered, and it is stated that the cicatricial process was thereby hastened and that the ulcer healed. To this we may add, that we have planted a portion of the dermal covering of a dog on an ulcer beginning to heal, and we found that in four days after it was firmly adherent and a ring of epidermal cells formed round it. The hair and superficial layers of the dermis were shed, as was the case in all the instances where grafts from animals were used.

The size of the graft employed has been very varied. M. de Wecker (*Annales D'oculistiques*, 1872) forms a mosaic with numerous little fragments of skin on wounds of the eyelids.

Macleod thinks that the graft should be about the size of a threepenny piece; while Hofmokl used a strip of epidermis half an inch square.

The grafts do not seem to go on extending their margins indefinitely. Dobson of Bristol found that the islet never extended more than the size of a florin, and generally do not go beyond that of a sixpence. Reverdin states that they do not extend indefinitely, and that they vary from the size of a 20 centime piece to that of a 50 centime piece. He further asserts that the grafts always tend to grow toward each other, or towards the marginal cicatrix, but that it is not generally admitted that they influence the growth of the cicatrix at the margin of the wound; but, as we have already mentioned, Macleod states that the epidermal scrapings appear in a curious manner to augment the cicatrizing activity of the edges.

Considerable difference of opinion still exists regarding the histology of this subject. Page, in the *British Medical Journal*, December, 1870, thought that he had established, by microscopic investigation, that the epithelium of the skin graft comported itself in the same manner as ordinary cicatricial epithelium; and Jacenko (de Kiew) stated that he found a multiple nucleus in the interior of the cells of the malpighian layer of the skin graft. But most observers deny the theory of proliferation. M. Poncet and M. Colrat have both given papers founded on microscopic study, which appear separately in the *Lyon Medical*, and these observers arrive at conclusions nearly similar to those expressed by M. Reverdin in his essay which appeared in the *Archives Générales de Médecine* (March, May, and June, 1872.) M. Reverdin, on examining the graft 48 hours after it had been transplanted, saw that granulations were separated from the graft, and plunged down between the body of the graft and the embryonic tissue of the ulcer, with which the granulations ultimately coalesced to form a single tissue. To these prolongations he gave the name of "*bourgeons d'enchassement*," or "stilt granulations." He next describes the formation of the cicatrix round the graft. The cells, springing from the graft, have apparently only one nucleus, and he never saw any appearance of it dividing, so that there is nothing to indicate a proliferation of the elements, and in this MM. Poncet and Colrat agree with him. And M. Reverdin further states, seeing that there is nothing to indicate formation of cells from a blastema, that the only hypothesis at which he can arrive is, that the transplanted epidermis determines, by its presence, the transformation of the embryonic cells of the granulations into epidermic cells,

that is to say, that the epidermis of the graft will only form a mould or model to the embryonic cells. In practising Zoo-grafting, however varied the animals were from which he obtained the grafts, they always produced the same kind of cicatrix, namely, the ordinary cicatricial tissue found in man.

Opposed to this view, we have the theory which ascribes the principal role in the production of the cicatrix to the connective tissue; and this is advocated by M. Ollier, who cites in support of his views, the success obtained by him in producing cicatrization by means of a graft of periosteum. He might also have added the clinical observation of Howard, with his muscle grafts, as at least opposing the theory of Reverdin.

Probably, the matter would be much more easily solved did we know the mode of growth of the ordinary epithelium. We might then be able to ascertain the difference between the formation of ordinary and cicatricial epithelium; and we would also be better able to ascribe the correct theory to the production of the cicatrix from the grafts. Dr Otto Weber, long ago, stated that he had seen new cells emanate from connective tissue corpuscles of granulating surfaces. Again, many believe that the epidermic and epithelial cells are derived from the primitive embryonic cells, and that each must be derived from its parent by division of its nucleus; and several observers state that they have seen cells actually undergoing a process of subdivision. The view of Reverdin has been accepted by many; but we think that there is some other cause, some other influence or agency at work in producing the cicatrix from the islets instead of the mere presence of a "mould." It finds no homotype in the animal body. And we agree with a remark of M. Marduel, that there is still abundant room for scientific investigation, as the *facts* (?) quoted by various authors require to be further tested before any decided opinion can be pronounced.

Two cases of *Vicarious Menstruation* are to be found in the March number, 1872, reported by M. P. Meynet (*Médecin de la Charité*). The one is that of a girl aged 17 years, who had been admitted into the *Hôtel Dieu*, 1862, and who then stated that she had suffered for the last eight months from a bleeding, issuing from an aperture under the nipple of each mamma, which came on at the usual period of menstruation; and which was preceded by pain and turgescence of the mammæ. M. P. Meynet observed this vicarious flow threetimes. It occurred every three weeks. The flow lasted from two or three days, and the quantity of discharge might be reckoned

at from 30 to 40 grammes each day. The discharge was blood of a deep red colour. Tonics and iron, &c., were employed for the purpose of restoring the menstrual flow to its proper channel, but she left the hospital without any apparent benefit. However, natural menstruation set in two months after her dismissal.

Ten years subsequently she was seen by M. Meynet, who found that she had continued to menstruate by the normal channel since 1862; but her menses came on every three weeks, and were very profuse and accompanied by great pain. Her appearance and symptoms generally were indicative of chlorosis. She had been then married for three years, but had no children.

The second case was that of a woman aged 44 years, of strong constitution and sanguine temperament, who had commenced to menstruate when she was twelve years of age, and had continued to do so up till eight months previous to M. Meynet seeing her. At each period of menstruation during the last eight months her breasts were swollen and painful, and the nipples discharged reddish black blood variable in quantity, but always staining a "great number of handkerchiefs daily." She had been treated for several years for an engorgement of the neck of the uterus with ulceration. Three months prior to M. Meynet having seen her, a tumour appeared in the right breast following a slight knock. It was circumscribed, painful, augmented at each menstrual period, and was not amenable to ordinary treatment. M. Meynet remarks that certain authors ascribe bleeding from the nipple as a sign of cancer, but that this tumour showed no appearance of cancer. M. Düchansoy mentions two cases of bleeding from the breasts without any indication of cancer.

*Disease of Sleep.*—M. Marduel reports a case of "Disease of Sleep," which he states is frequently observed among the negroes on the West Coast of Africa. From his description of this patient, who "sometimes slept two and three days without interruption," we would be much inclined to view the matter sceptically. "The precise state of the pupils could not be determined, because whenever the eyelids were opened the eyeballs were turned up to the back of the head." Does this happen in those who are insensible from sleep? Another case set down as the result of *coupe de foudre*, related by Fontan, appears to us to be a good instance of hysteria in the male, and as such we can commend M. Fontan for his treatment by cold baths, which was eminently successful.

M. Vernay describes a case of *convulsions in the infant*

brought on by the alcoholic indulgence of the nurse. How many deaths in this city may be the result of poisoned mother's milk?

M. Marduel gives a paper on the subject of *Extirpation of the Kidney*, from which we learn that Zambecarius first practised extirpation of the kidneys on animals. Blanchard in 1696 thought that it might be possible to practice it on man. Claude Bernard, Rayer, Prevost and Dumas extirpated the kidney several times from dogs; and when only one was removed, the animal survived. Rayer maintained that though it were possible to extirpate a healthy kidney from an animal, yet it would be folly to attempt the operation in man affected with calculus or a suppurating kidney.

Since 1869, the operation of extirpation of the kidney has been performed three times in man. The first was performed by Simon, of Heidelberg, on a woman, aged 26 years, who previously had undergone ovariectomy, and had consecutive urethro-abdominal fistula, from which the urine from the left kidney escaped. This fistula was attempted to be rectified in a variety of ways, but none of them succeeded. The kidney was extirpated. Six weeks after the operation, the patient was able to sit up in bed, and has since done well, making a complete and rapid recovery.

The second case was that of a woman 33 years of age, five months advanced in pregnancy, and having a displaced painful kidney, which prevented her from rest, and which was ultimately extirpated by Mr Gilmore (an account of which may be found in the *American Journal of Obstetrics*, May, 1871). The woman not only recovered, but carried her child till its full time.

The third case, by Burns, was that of a soldier who was wounded by a bullet in the left kidney, which established a renolumbar fistula, followed by renal suppuration and purulent infection. As a last hope, the kidney was extirpated, but the man died soon after. These results show the practicability of extirpation of the kidney, especially in cases where the organ itself is healthy.

In the second April number there is an instrument described by M. Gayet, *Chirurgien en Chef* to the *Hôtel Dieu*, Lyons, by means of which he was enabled to reduce a dislocation of the lower jaw of more than three months' standing. It consists of (1) a straight strong bit, which is capable of being fitted behind the farthest back molar teeth, and between them and the ascending ramus of the lower jaw; (2) this bit is continuous with two stems, which are attached to



its outer extremities, and which run on the outside of the arch of the teeth of the lower jaw until they make their exit from the mouth at the distance of three centimetres from each other, then they curve downwards on to a plate of iron which is attached on one side to a handle 30 centimetres in length, and on the other side to a bent stem which stretches itself under the chin. The extremity of this last stem is furnished with a screw, which is supported on a well-stuffed pad capable of moulding itself to the lower maxilla. By this powerful lever he was able to reset the dislocation of the right condyle of the lower jaw after three months' standing. M. Gayet admits that Sir Astley Cooper and Malgagne described an instrument by Junker, on the same principle as this one, but much more complicated.

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II.—ESSENTIALS OF THE PRINCIPLES AND PRACTICE OF MEDICINE. A Handbook for Students and Practitioners. By HENRY HARTSHORNE, A.M., M.D., *Professor of Hygiene in the University of Pennsylvania*, &c., &c. 12mo. pp. 487.

THIS is a work of a sort which might be easily confounded with the more trashy kind of student's manuals and vade-mecums—third and fourth rate productions that emerge now and then with a view solely to facilitate the labours of the “grinder,” and of which the character may usually be written in one brief sentence, “tedious to read, and useless to get by heart.” The tediousness of such books is not, indeed, in proportion to, but it is certainly in part because of, their brevity; their aim being to cram as many distinct statements of fact, or of theory, or of modes of cure into half a page as would require many pages to explain and illustrate, the result is an arid wilderness of doctrines and data, in which no gleam of personal conviction ever intervenes to show the poor overtasked student that one opinion is of more importance than another. It is otherwise with the present author, and his little book of “essentials.” Here there is no want of a guiding and determining spirit, nor is there any want of good materials; the author's decisions in matters of opinion are prompt, clearly expressed, and carry, apparently, the weight and force of conviction derived from personal experience. The book is, therefore, though necessarily a compilation, and a good compilation, very far from being a compilation *merely*; it is fairly entitled to be called, in a certain sense, an original work, and it is one of the few

books, original or other, that we feel inclined to wish had been longer than it is. Something intermediate between Hartshorne and Aitken, say, but considerably nearer to the former than the latter would, we think, be almost an ideal text-book in practice of medicine. The faults of the book are such as could not be profitably remarked upon without a much longer space than we can devote to it. The author is often very positive and assured, sometimes, we think, *too* dogmatic, and sometimes, not very often, wrong out and out. Much more often he errs by presenting statements in too compact a shape, and without the necessary qualifications and reservations. The following on a familiar theme, the typhus eruption, is only one illustration:—"Towards the end of the first week, in most cases, a rash appears of little and numerous red papulæ (miliary eruption) all over the chest, abdomen, and upper parts of the limbs. They are accompanied by *sudamina* (minute vesicles) in many instances, by *petechiæ* in a few." This is literally *all* in Dr Hartshorne's book about typhus eruption, and we appeal to any one who has seen much of the disease if this is a good description. It would not be very easy to show briefly what is wrong in it, but, as a whole, it conveys a wrong impression, and this obviously from attempting too great compression. Apropos of typhus, we may add, that Dr Hartshorne is opposed to large and indefinite stimulation in this disease, and gives full credit to the results obtained in Glasgow under an opposite system, the character of which, however, he somewhat overstates, owing to his desire for condensation. But notwithstanding this, he begins his "essentials" of treatment with the statement, that "more than half the cases of typhus, according to my observation, require alcoholic stimulation as well as concentrated nourishment, *after the fourth day*." What is the student to infer from this statement? that he is to begin stimulating more than half his cases regularly on the fifth day? If so, we beg to enter a dissent, and to say that the facts he himself refers to prove the contrary. Notwithstanding our occasional differences with the author, however, we commend his book as one to which no student and no practitioner can refer without getting many useful suggestions from it.